Amendments to the Claims

1. (currently amended) A method of conducting a wireless inventory of items using a network tag reader and tags, wherein a unique tag is attached to each item and each tag is ~~permanently assigned~~ identified by a plurality of bits ~~a tag identification number (Tag ID)~~, the method comprising the steps of:

selecting one of a plurality of remote access sensor modules, which communicate wirelessly with the items, wherein the selected remote access sensor module comprises a coverage pattern that defines a physical area containing a plurality of items with their associated tags;

e'

interrogating the tags in a defined physical area through the corresponding selected remote access sensor module, thereby receiving information from the tags in the defined physical area;

storing the information received in the interrogating step in an inventory database;

repeating the selecting, interrogating, and storing steps for each remote access sensor module; and

after the selecting, interrogating, and storing steps are performed for each remote access sensor module, processing the information in the inventory database.

2. (currently amended) The method of claim 1, wherein the information received in the interrogating step comprises ~~at least one Tag ID~~ at least a first plurality of the

plurality of bits~~, each Tag ID~~ corresponding to a tag within the physical area defined by the coverage pattern.

3. (previously presented) The method of claim 2, further comprising the step of repeating the selecting, interrogating, storing, repeating, and processing steps.

4. (currently amended) The method of claim 3, wherein the storing step comprises the step of:

if a particular ~~Tag ID~~ first plurality of the plurality of bits corresponding to a tag received during an initial performance of the interrogating step has not been received during a subsequent performance of the interrogating step within a predetermined time period, storing information in the inventory database that indicates ~~a~~ the tag corresponding to the particular ~~Tag ID~~ first plurality of bits is missing.

5. (currently amended) The method of claim 4, wherein the processing step comprises the step of initiating a security action when the particular ~~Tag ID~~ first plurality of bits is missing.

6. (previously presented) The method of claim 5, wherein the security action comprises turning on a surveillance camera.

7. (previously presented) The method of claim 5, wherein the security action comprises activating a silent alarm.

8. (currently amended) The method of claim 2, wherein the processing step comprises the step of correlating a remote access sensor module identity with each ~~Tag ID~~ of the first plurality of bits received in the interrogating step to maintain data regarding the location of each tag corresponding to ~~a Tag ID~~ each of the first plurality of bits.

9. (previously presented) The method of claim 1, wherein the information received in the interrogating step comprises sensor information originated by a sensor associated with a tag within the physical area defined by the coverage pattern.

10. (previously presented) The method of claim 9, wherein the sensor information indicates tag movement and/or vibration.

11. (previously presented) The method of claim 9, wherein the sensor information indicates ambient tag temperature.

12. (previously presented) The method of claim 9, wherein the processing step comprises the step of analyzing the sensor information for a condition that indicates a security breach.

13. (previously presented) The method of claim 12, wherein the condition that indicates a security breach comprises a temperature fluctuation.

14. (previously presented) The method of claim 12, wherein the condition that indicates a security breach comprises a sudden vibration.

15. (original) The method of claim 1, wherein the network tag reader is connected to each of the plurality of remote access sensor modules through an electrical power distribution system.

e'

16. (currently amended) The method of claim 1, wherein the interrogating step comprises the steps of:

at the network tag reader,

transmitting through the selected remote access sensor module ~~a wake-up signal followed by~~ a first clock signal;

at each tag within the physical area defined by the coverage pattern of the selected remote access sensor module,

incrementing a first tag count in response to the first clock signal, and

transmitting ~~the Tag ID~~ at least a first plurality of the plurality of bits ~~assigned to each~~ identifying the tag when the ~~Tag ID~~ first plurality of bits of ~~each~~ the tag corresponds to the first tag count;

at the network tag reader,

incrementing a first reader count in response to the first clock signal,

storing a given first reader count when more than one tag responds to the first clock signal that corresponds to the given first reader count, and

transmitting through the selected remote access sensor module the given first reader count followed by a second clock signal; and

at each tag wherein the first plurality of bits corresponds to the first reader count, ~~that responds to the transmitted given first reader count~~,

incrementing a second tag count in response to the second clock signal, and

transmitting at least a second ~~number~~ plurality of the plurality of bits ~~assigned to each~~ identifying the tag when the second ~~number of each~~ plurality of the plurality of bits identifying the tag corresponds to the second count.

b1

17. (original) The method of claim 1, wherein the network tag reader is a PCMCIA card.

18. (original) The method of claim 1, wherein at least one of the remote access sensor modules attaches to an electrical lighting fixture.

19. (currently amended) A system for conducting a wireless inventory of items using a network tag reader and tags, wherein a unique tag is attached to each item and each tag is ~~permanently assigned~~ identified by a plurality of bits ~~tag identification number (Tag ID)~~, ~~the method~~ comprising ~~the steps of~~:

means for selecting one of a plurality of remote access sensor modules, which communicate wirelessly with the items, wherein the selected remote access sensor

module comprises a coverage pattern that defines a physical area containing a plurality of items with their associated tags;

means for interrogating the tags in a defined physical area through the corresponding selected remote access sensor module, thereby receiving information from the tags in the defined physical area;

means for storing the information received by the interrogating means in inventory database;

e'

means for repeating the selecting, interrogating, and storing means for each remote access sensor module; and

means for processing the information in the inventory database.

20. (currently amended) The system of claim 19, wherein the information received by the interrogating means comprises ~~at least one Tag ID~~ at least a first plurality of the plurality of bits~~, each Tag ID~~ corresponding to a tag within the physical area defined by the coverage pattern.

21. (previously presented) The system of claim 20, further comprising means for repeatedly invoking the selecting, interrogating, storing, repeating, and processing means.

22. (currently amended) The system of claim 21, wherein the storing means comprises:

if a ~~Tag ID~~ first plurality of the plurality of bits corresponding to a tag received during an initial performance of the interrogating means has not been received during a subsequent performance of the interrogating means within a predetermined time period, means for storing information in the inventory database that indicates a tag corresponding to the ~~Tag ID~~ first plurality of bits is missing.

23. (currently amended) The system of claim 22, wherein the processing means comprises means for initiating a security action when ~~a Tag ID~~ the first plurality of bits is missing.

24. (previously presented) The system of claim 23, wherein the means for initiating a security action comprises means for turning on a surveillance camera.

25. (previously presented) The system of claim 23, wherein the means for initiating a security action comprises means for activating a silent alarm.

26. (currently amended) The system of claim 20, wherein the processing means comprises means for correlating a remote access sensor module identity with each ~~Tag ID~~ of the first plurality of bits received by the interrogating means to maintain data regarding the location of each tag corresponding to ~~a Tag ID~~ each of the first plurality of bits.

27. (previously presented) The system of claim 19, wherein the information received by the interrogating means comprises sensor information originated by a sensor associated with a tag within the physical area defined by the coverage pattern.

28. (previously presented) The system of claim 27, wherein the sensor information indicates tag movement and/or vibration.

29. (previously presented) The system of claim 27, wherein the sensor information indicates ambient tag temperature.

30. (previously presented) The system of claim 27, wherein the processing means comprises means for analyzing the sensor information for a condition that indicates a security breach.

31. (previously presented) The system of claim 30, wherein the condition that indicates a security breach comprises a temperature fluctuation.

32. (previously presented) The system of claim 30, wherein the condition that indicates a security breach comprises a sudden vibration.

33. (original) The system of claim 19, wherein the network tag reader is connected to each of the plurality of remote access sensor modules through an electrical power distribution system.

34. (currently amended) The system of claim 19, wherein the means for interrogating comprises:

at the network tag reader,

means for transmitting through the selected remote access sensor module ~~a wake-up signal followed by~~ a first clock signal;

at each tag within the physical area defined by the coverage pattern of the selected remote access sensor module,

means for incrementing a first tag count in response to the first clock signal, and

means for transmitting ~~the Tag ID~~ at least a first plurality of the plurality of bits ~~assigned to each~~ identifying the tag when the ~~Tag ID~~ first plurality of bits of ~~each~~ the tag corresponds to the first tag count;

at the network tag reader,

means for incrementing a first reader count in response to the first clock signal,

means for storing a given first reader count when more than one tag responds to the first clock signal that corresponds to the given first reader count, and

means for transmitting through the selected remote access sensor module the given first reader count followed by a second clock signal; and

at each tag wherein the first plurality of bits corresponds to the first reader count, ~~that responds to the transmitted given first reader count~~,

means for incrementing a second tag count in response to the second clock signal, and

means for transmitting at least a second ~~number~~ plurality of the plurality of bits ~~assigned to each~~ identifying the tag when the second ~~number of each~~ plurality of the plurality of bits identifying the tag corresponds to the second count.

b'

35. (original) The system of claim 19, wherein the network tag reader is a PCMCIA card

36. (original) The system of claim 19, wherein at least one of the remote access sensor modules attaches to an electrical lighting fixture

37. (currently amended) The method of claim 1, further including the step of performing multiple reads of the tags by the network tag reader to avoid time slot contention, ~~wherein the tag identification number includes a plurality of bits,~~ wherein a tag responds to the network tag reader with a first plurality of the plurality of bits during a first read and a second plurality of the plurality of bits during a second read.

38. (currently amended) The system of claim 19, wherein the network tag reader performs multiple reads of the tags to avoid time slot contention, ~~wherein the tag identification number includes a plurality of bits,~~ wherein a tag responds to the network

tag reader with a first plurality of the plurality of bits during a first read and a second plurality of the plurality of bits during a second read.

b1